Claims

What is claimed is:

1. A magnetic resonance imaging system comprising:

a stationary electromagnet;

a patient support located adjacent to the electromagnet for maintaining a patient in a standing position; and

an actuator for raising and lowering the patient support and patient relative to a magnetic field of the electromagnet such that the patient is located within the magnetic field.

2. A magnetic resonance imaging system as defined in claim 1 further including at least one positioning fixture connected with the patient support for maintaining the patient in the standing position.

3. A magnetic resonance imaging system as defined in claim 2 further including at least one secondary electromagnet positioned within the magnetic field of the stationary electromagnet.

4. A magnetic resonance imaging system comprising:

a stationary electromagnet;

a patient support located adjacent to the electromagnet for maintaining a patient in a seated position; and

an actuator for raising and lowing the patient support and patient relative to a magnetic field of the electromagnet such that the patient is located within the magnetic field.

5. A magnetic resonance imaging system as defined in claim 4 further including at least one positioning fixture connected with the patient support for maintaining the patient in the seated position.

6. A magnetic resonance imaging system as defined in claim 5 further including at least one secondary electromagnet positioned within the magnetic field of the stationary electromagnet.

7. An apparatus for magnetic resonance imaging of a joint of a patient, the apparatus comprising:

a stationary electromagnet;

a patient support located adjacent to the electromagnet for maintaining a patient in a standing position;

at least one positioning fixture connected with the patient support for holding the joint of the patient; and

an actuator for raising and lowering the patient support and patient relative to a magnetic field of the electromagnet such that the joint of the patient is located within the magnetic field.

8. An apparatus as defined in claim 7 wherein the joint is subjected to a first force.

9. An apparatus as defined in claim 7 wherein the joint is subjected to a second force which is greater than the first force.

10. An apparatus for magnetic resonance imaging of a joint of a patient, the apparatus comprising:

a stationary electromagnet;

a patient support located adjacent to the electromagnet for maintaining a patient in a seated position;

at least one positioning fixture connected with the patient support for holding the joint of the patient; and

an actuator for raising and lowering the patient support and patient relative to a magnetic field of the electromagnet such that the joint of the patient is located within the magnetic field.

11. An apparatus as defined in claim 10 wherein the joint is subjected to a first force.

12. An apparatus as defined in claim 10 wherein the joint is subjected to a second force which is greater than the first force.

13. An apparatus for magnetic resonance imaging of a spine of a patient, the apparatus comprising:

a stationary electromagnet;

a patient support located adjacent to the electromagnet for maintaining a patient in a standing position;

at least one positioning fixture connected with the patient support for holding the spine of the patient; and

an actuator for raising and lowering the patient support and patient relative to a magnetic field of the electromagnet such that the spine of the patient is located within the magnetic field.

14. An apparatus as defined in claim 13 wherein the spine is subjected to a first force.

15. An apparatus as defined in claim 13 wherein the spine is subjected to a second force which is greater than the first force.

16. An apparatus for magnetic resonance imaging of a spine of a patient, the apparatus comprising:

a stationary electromagnet;

a patient support located adjacent to the electromagnet for maintaining a patient in a seated position;

at least one positioning fixture connected with the patient support for holding the spine of the patient; and

an actuator for raising and lowering the patient support and patient relative to a magnetic field of the electromagnet such that the spine of the patient is located within the magnetic field.

17. An apparatus as defined in claim 16 wherein the spine is subjected to a first force.

18. An apparatus as defined in claim 16 wherein the spine is subjected to a second force which is greater than the first force.

19. A method for magnetic resonance imaging, the method comprising the steps of:

positioning a patient against a patient support such that the patient is maintained in a standing position;

moving the patient into a magnetic field of a stationary electromagnet; and

imaging the patient with the electromagnet.

20. A method as defined in claim 19 further including the step of using at least one positioning fixture to maintain the patient in a generally fixed position before imaging the patient with the electromagnet.

21. A method as defined in claim 19 wherein the step of imaging the patient with the electromagnet includes imaging the patient with stationary and secondary electromagnets.

22. A method for magnetic resonance imaging, the method comprising the steps of:

positioning a patient against a patient support such that the patient is maintained in a seated position;

moving the patient into a magnetic field of a stationary electromagnet; and,

imaging the patient with the electromagnet.

23. A method as defined in claim 22 further including the step of using at least one positioning fixture to maintain the patient in a generally fixed position before imaging the patient with the electromagnet.

24. A method as defined in claim 22 wherein the step of imaging the patient with the electromagnet includes imaging the patient with stationary and secondary electromagnets.